Beautiful morning conjunction

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Sleeping late is one of the simple pleasures of summer vacation. This week, waking up early will be a pleasure, too.

Set your alarm for 30 minutes before sunrise. Venus and Jupiter are converging in the dawn sky for a beautiful conjunction that will wake you up faster than a cup of strong coffee. To see it, you'll need a clear view of the east-northeastern horizon and … that's all. No telescope is required. These are the two brightest planets in the Solar System, and they are visible to the naked eye even from light-polluted cities.

The show begins on August 15th with Venus and Jupiter little more than 2o apart. That means they would fit with ease inside the bowl of the Big Dipper, and you could hide the converging pair behind the palm of your outstretched hand.

Which is Jupiter and which is Venus? You can tell them apart by their luminosity: Venus shines 6 times more brightly than Jupiter, a result of Venus's super-reflective cloud cover and proximity to Earth.

As mid-August unfolds, the conjunction improves. The best morning to look is Monday, August 18th when Venus and Jupiter will be just two-tenths of a degree apart. Now you can hide them behind the tip of your outstretched pinky.

Although optics are not required to see this amazingly bright pair, if you have binoculars, use them. A quick scan of the sky around Venus and Jupiter reveals that the two worlds are not alone. The planets have converged right beside M44, the Beehive Cluster. Located about 500 light years from Earth, this busy cluster of stars is barely visible to the naked eye, but it is an easy target for ordinary binoculars. At first glance it might seem that a pair of supernovas has gone off inside the cluster—but that's just Venus and Jupiter passing by.

After August 18th, the two worlds separate again. The mornings of the 19th, 20th and 21st still reward early risers with a beautiful view, but less so each day. Soon, the balance of pleasure will tip back to sleeping late.

There is, however, one additional morning to look. On August 23rd, a slender crescent Moon will join Venus and Jupiter, forming a wide but beautiful triangle approximately 7o on each side. A cosmic triangle shining through the rosy glow of dawn is a nice way to start the day.

Provided by NASA